

ABSTRACT OF THE DISCLOSURE

A lightweight armor with repeat hit capability includes at least one layer of material that absorbs energy upon being impacted by an object through a reversible phase change and/or an elastic strain deformation of at least 5%. Once the energy of the object has been absorbed the layer of material returns to its original shape, thereby resulting in an armor with repeat hit capabilities. The armor may also include additional layers of material constructed of conventional armor materials. A method of manufacturing such an armor is also disclosed.